

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A medical lead for electrical stimulation or sensing, the medical lead comprising a generally flat paddle on a distal end of a body of the lead, the paddle defining an imaginary longitudinal center line, the paddle comprising having:
 - first and second major surfaces;
 - an electrode array comprising at least one electrode located on the longitudinal center line defined by the paddle, the at least one electrode being exposed through the first major surface and insulated by the second major surface, thereby having directional electrical field properties relative to the first and second major surfaces of the paddle; and
 - an orientation marker being displaced from the longitudinal center line, on one side thereof, and from the at least one electrode for determining an orientation of the paddle, the orientation marker including ~~fluoroscopically viewable~~ radio-opaque material ~~displaced from the longitudinal center line on one side thereof~~ such that, when the orientation marker is viewed under fluoroscopy, as being on a particular side of the ~~imaginary~~ longitudinal center line, the direction in which the first major surface orientation of the paddle faces can be determined.
2. Cancelled
3. (Currently Amended) The medical lead of claim 1 in which the at least one electrode is ~~electrodes are~~ recessed relative to the first major surface.
4. (Original) The medical lead of claim 1 wherein the orientation marker is coded to identify the model or serial number of the lead.

5. Cancelled
6. (Currently Amended) The medical lead of claim [[5]] 1 wherein the radio-opaque material comprises platinum.
7. (Previously presented) The medical lead of claim 1 wherein the orientation marker comprises a discrete radio-opaque marker.
8. (Original) The medical lead of claim 7 wherein the orientation marker is formed of radio-opaque material selected from the group consisting of platinum and platinum/iridium alloy.
9. (Original) The medical lead of claim 8 wherein the paddle is formed of substantially transparent polyurethane material.
10. Cancelled
11. (Currently Amended) The medical lead of claim 1 wherein the orientation marker comprises radio-opaque material dispersed in the paddle ~~in an asymmetric manner with respect to the width of the paddle.~~
12. Cancelled

13. (Currently Amended) A medical lead for electrical stimulation or sensing, the medical lead comprising:

a lead body having proximal and distal ends, and at least one electrical conductor extending between the proximal and distal ends;

a connector on the proximal end of the lead body in electrical communication with the electrical conductor; and

a generally flat paddle on the distal end of the lead body, the paddle defining an imaginary longitudinal center line, the paddle ~~comprising~~ having:

proximal and distal ends, first and second major surfaces, and a length extending between the proximal and distal ends;

an electrode array being located on the longitudinal center line and displaced along the length of the paddle, toward the distal end of the paddle, and comprising at least one electrode in electrical communication with the electrical conductor, the at least one electrode array being exposed through the first major surface of the paddle and insulated by the second major surface of the paddle, thereby having directional electrical field properties relative to the first and second major surfaces; and

an orientation marker being displaced from the longitudinal center line, on one side thereof, and from the electrode array for determining an orientation of the paddle, the orientation marker including ~~fluoroscopically viewable~~ radio-opaque material ~~displaced from the longitudinal center line on one side thereof~~ such that, when the orientation marker is viewed under fluoroscopy, as being on a particular side of the imaginary longitudinal center line, the direction in which the first major surface orientation of the paddle faces can be determined.

14. Cancelled

15. (Currently Amended) The medical lead of claim ~~[[14]]~~ 13 in which the at least one electrode is recessed relative to the first major surface.
16. (Original) The medical lead of claim 13 wherein the orientation marker is coded to identify the model or serial number of the lead.
17. Cancelled
18. (Currently Amended) The medical lead of claim ~~[[17]]~~ 13 wherein the radio-opaque material comprises platinum.
19. (Previously Presented) The medical lead of claim 13 wherein the orientation marker comprises a discrete radio-opaque marker.
20. (Original) The medical lead of claim 19 wherein the orientation marker is formed of radio-opaque material selected from the group consisting of platinum and platinum/iridium alloy.
21. (Original) The medical lead of claim 20 wherein the paddle is formed of substantially transparent polyurethane material.
22. Cancelled
23. (Currently Amended) The medical lead of claim 13 wherein the orientation marker comprises radio-opaque material dispersed in the paddle ~~in an asymmetric manner with respect to the width of the paddle.~~
24. Cancelled

25. (Currently Amended) A method of use of a medical lead, the method comprising:
implanting the medical lead into a desired stimulation or sensing site in a patient, the lead comprising a generally flat paddle on a distal end of a body of the lead, the paddle defining an imaginary longitudinal center line and comprising first and second major surfaces and an electrode array, the electrode array being located on the longitudinal center line and including at least one electrode being exposed through the first major surface of the paddle and insulated by the second major surface of the paddle, thereby having directional electrical field properties relative to the first and second major surfaces;
fluoroscopically viewing an orientation marker provided on ~~[[a]] the paddle on a distal end of a body of the lead and, the marker~~ being displaced from ~~[[an]] the imaginary longitudinal center line, on one side thereof, and from the electrode array defined by the paddle, the paddle having first and second major surfaces and an electrode array comprising at least one electrode, which electrode is exposed through the first major surface and is insulated by the second major surface;~~ and
determining ~~an orientation of a direction in which~~ the first major surface of the paddle faces, based on a location of the fluoroscopically viewed marker, with respect to a side of the longitudinal center line of the paddle upon which the orientation marker is fluoroscopically viewed.
26. Cancelled
27. (Previously presented) The method of claim 25 wherein the orientation marker is coded to identify the model or serial number of the lead, the method further comprising determining the model or serial number of the lead based on the step of fluoroscopically viewing the orientation marker of the implanted lead.

28. (Previously Presented) The method of claim 25 wherein the orientation marker comprises a discrete radio-opaque marker.

29. (Currently Amended) The method of claim 25 wherein the orientation marker comprises radio-opaque material dispersed in the paddle ~~in an asymmetric manner with respect to the width of the paddle.~~